

Warren, Rhode Island

WASTEWATER TREATMENT FACILITY CONSENT AGREEMENT UPDATE



Town Council Meeting
June 30, 2015

Project Timeline

- Engineering Design Experience
- O&M Experience and Mindset
- RI Permitting & Regulations
- Partnering with Town & Operations Team



**Seamless Approach to Cost-Effective
Solution for Warren, RI**

Draft
Permit

Consent
Agreement

Permit
Modification

Start

Jan 2010

Sept 2011

Aug 2013

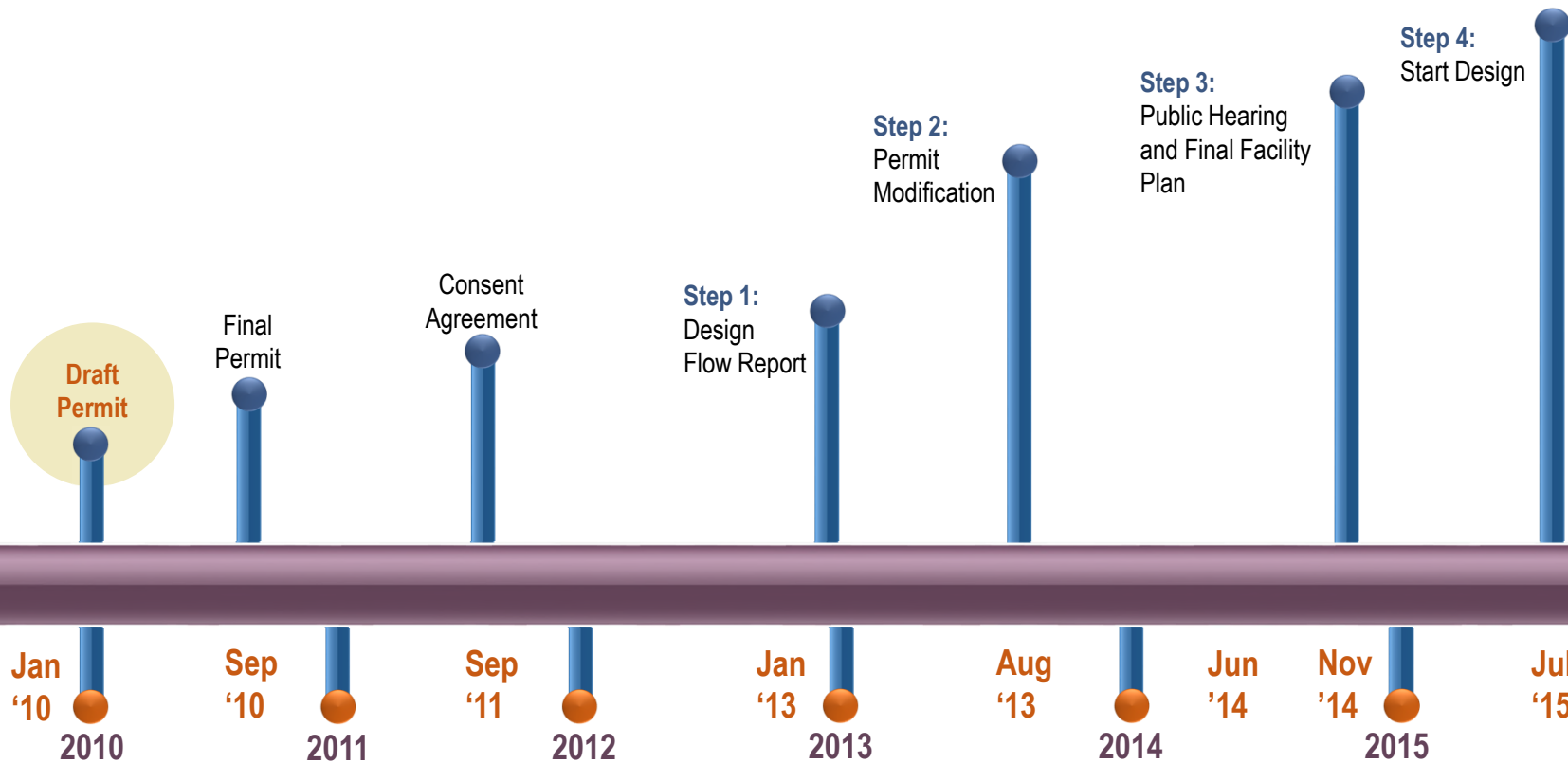
Jul 2015



COMMITMENT & INTEGRITY DRIVE RESULTS

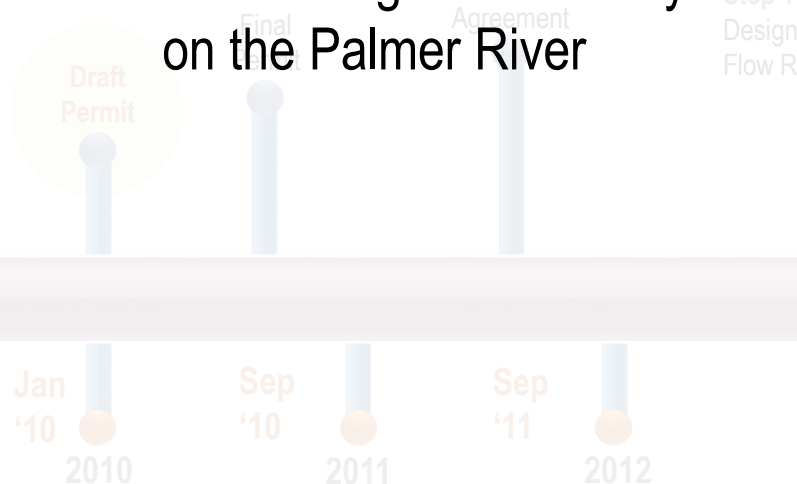
Project Timeline

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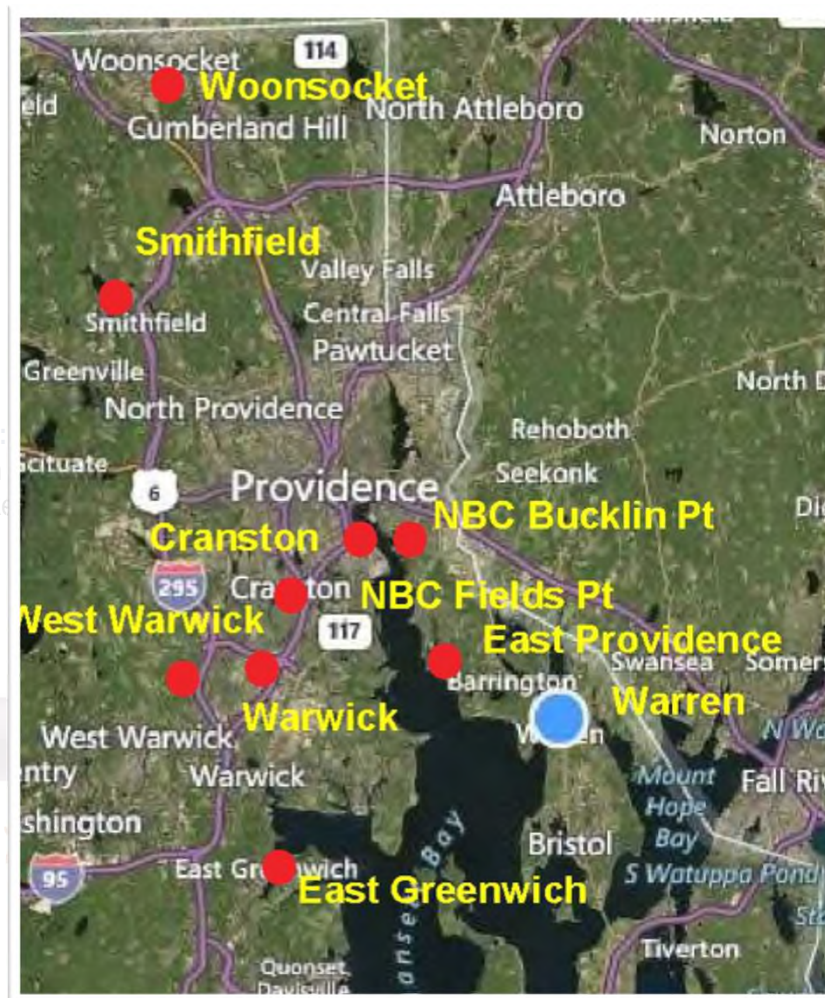


Why was a Nitrogen Limit Issued?

- Water quality & fish kills
- 2004 mandate for 50% reduction
- RI and Mass facilities
- DEM nitrogen load study on the Palmer River



Step 1:
Design
Flow Re

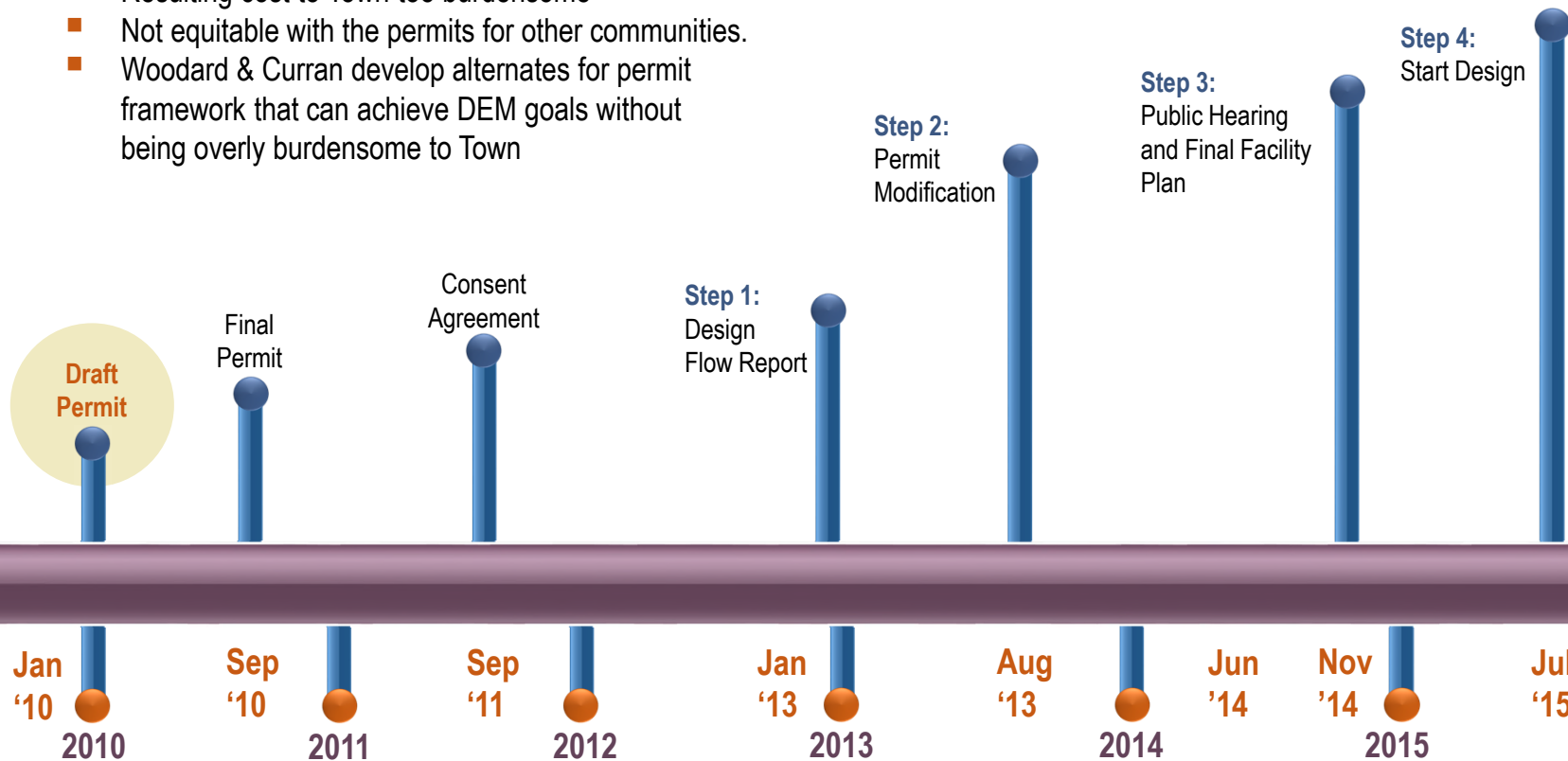


Project Timeline

Woodard & Curran advocates for Town

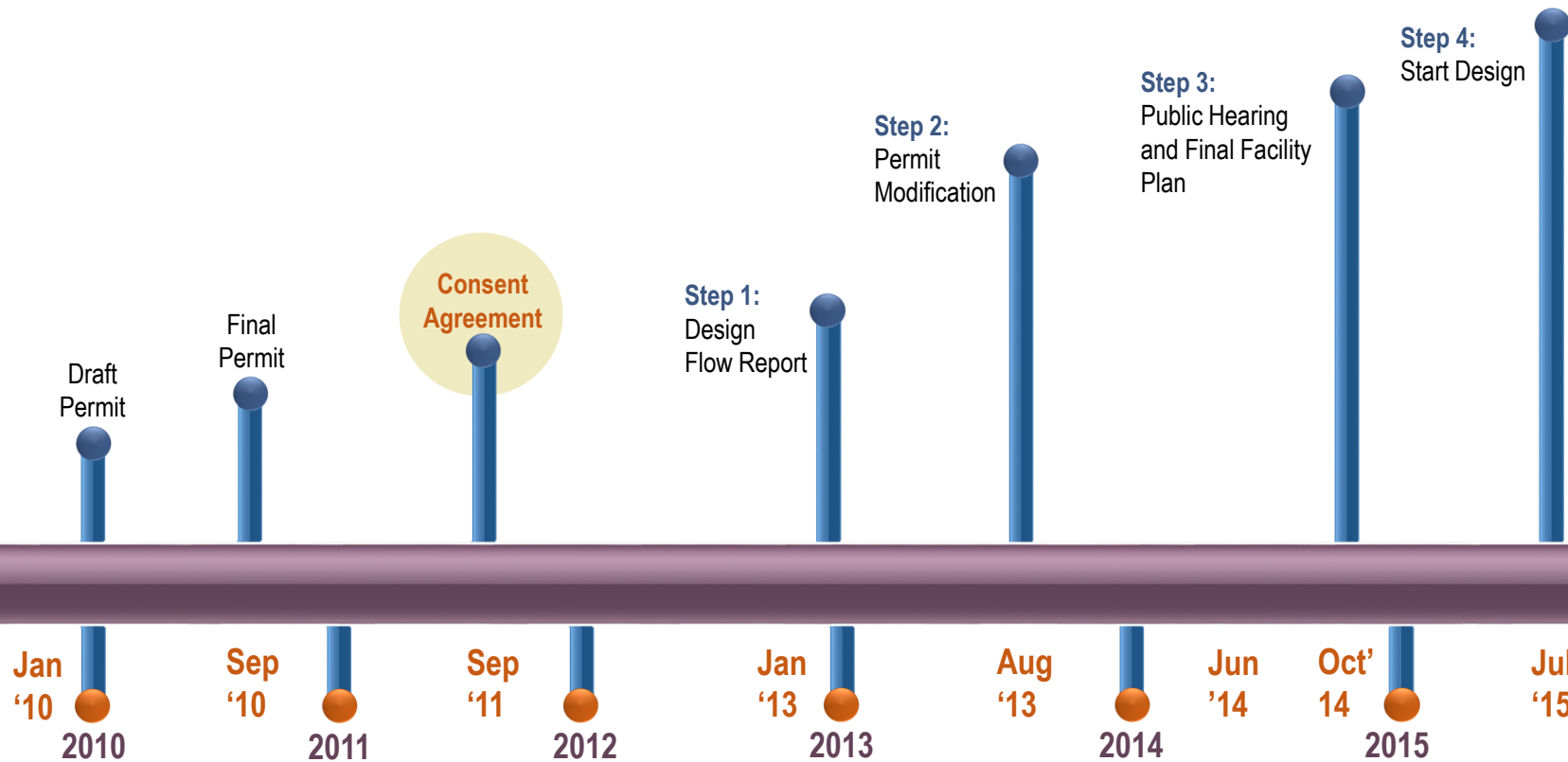
- Lack of certainty that limits will achieve water quality goals;
- Resulting cost to Town too burdensome
- Not equitable with the permits for other communities.
- Woodard & Curran develop alternates for permit framework that can achieve DEM goals without being overly burdensome to Town

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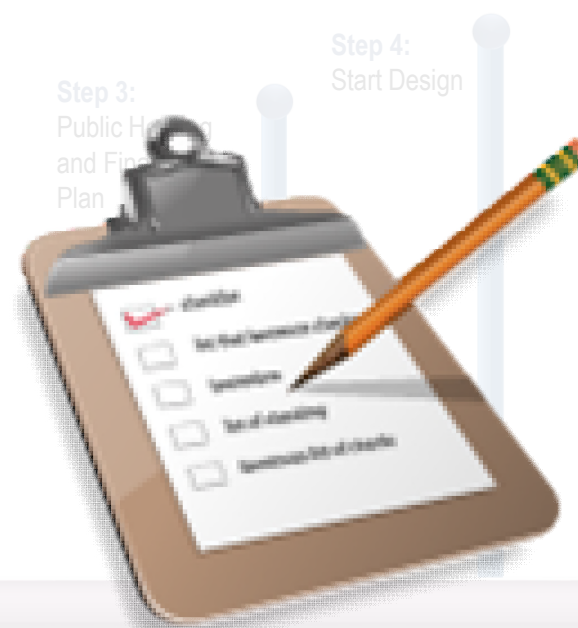
Project Timeline

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Background on Consent Agreement

- Finalized in September 2011
- Negotiations between Warren, United Water, Woodard & Curran and State (DEM)
- Lays out steps for compliance:
 - Design Flow Report
 - Permit Modification (DEM)
 - Facility Plan
 - **Engineering and Permitting**
 - Bidding and Construction



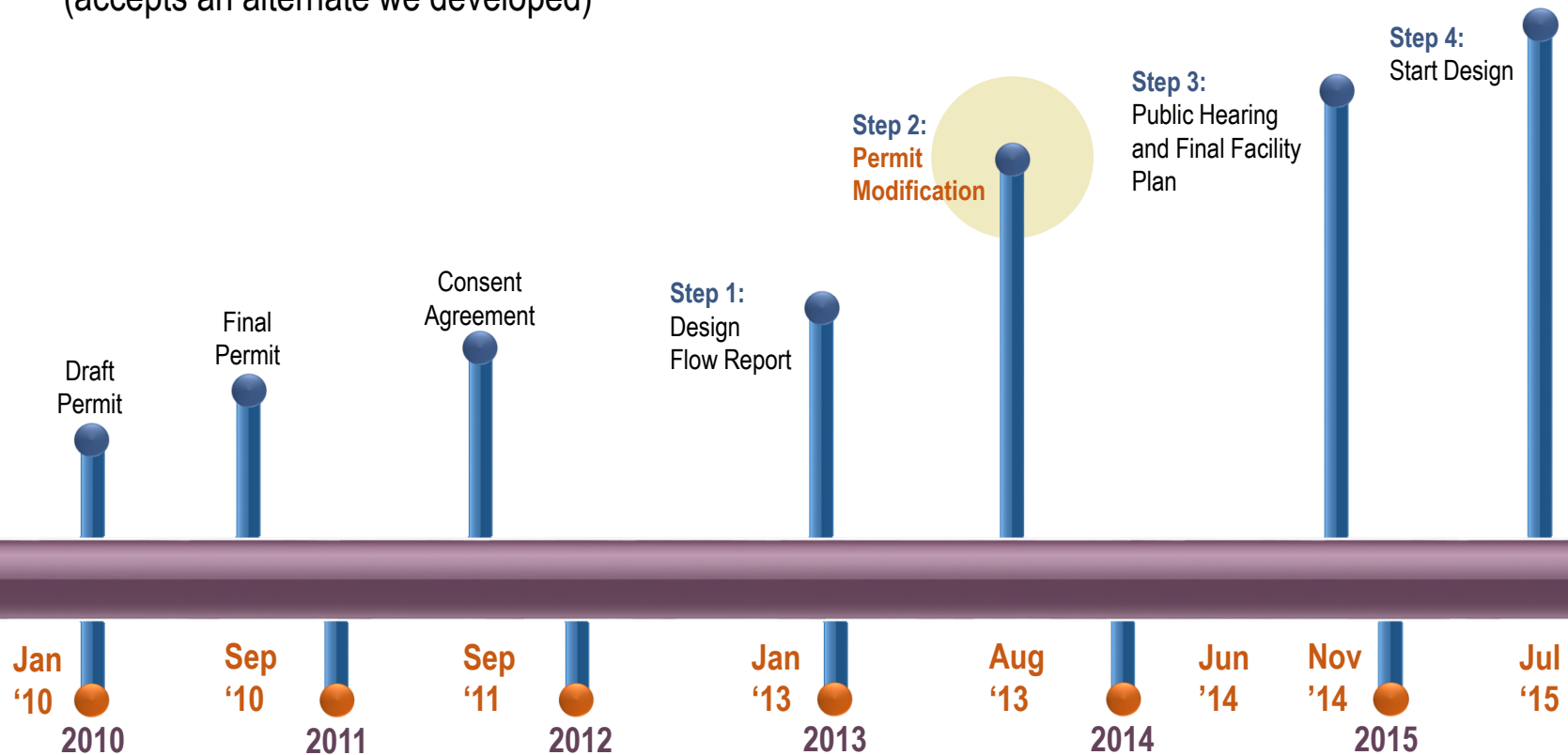
Jan '10 2010 Sep '10 2011 Sep '11 2012 Jan '13 2013 Aug '13 2014 Jun '14 2015 Nov '14 2015 Jul '15

Project Timeline

Success!

DEM issues **more accommodating** permit
(accepts an alternate we developed)

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Background on Permit Modification

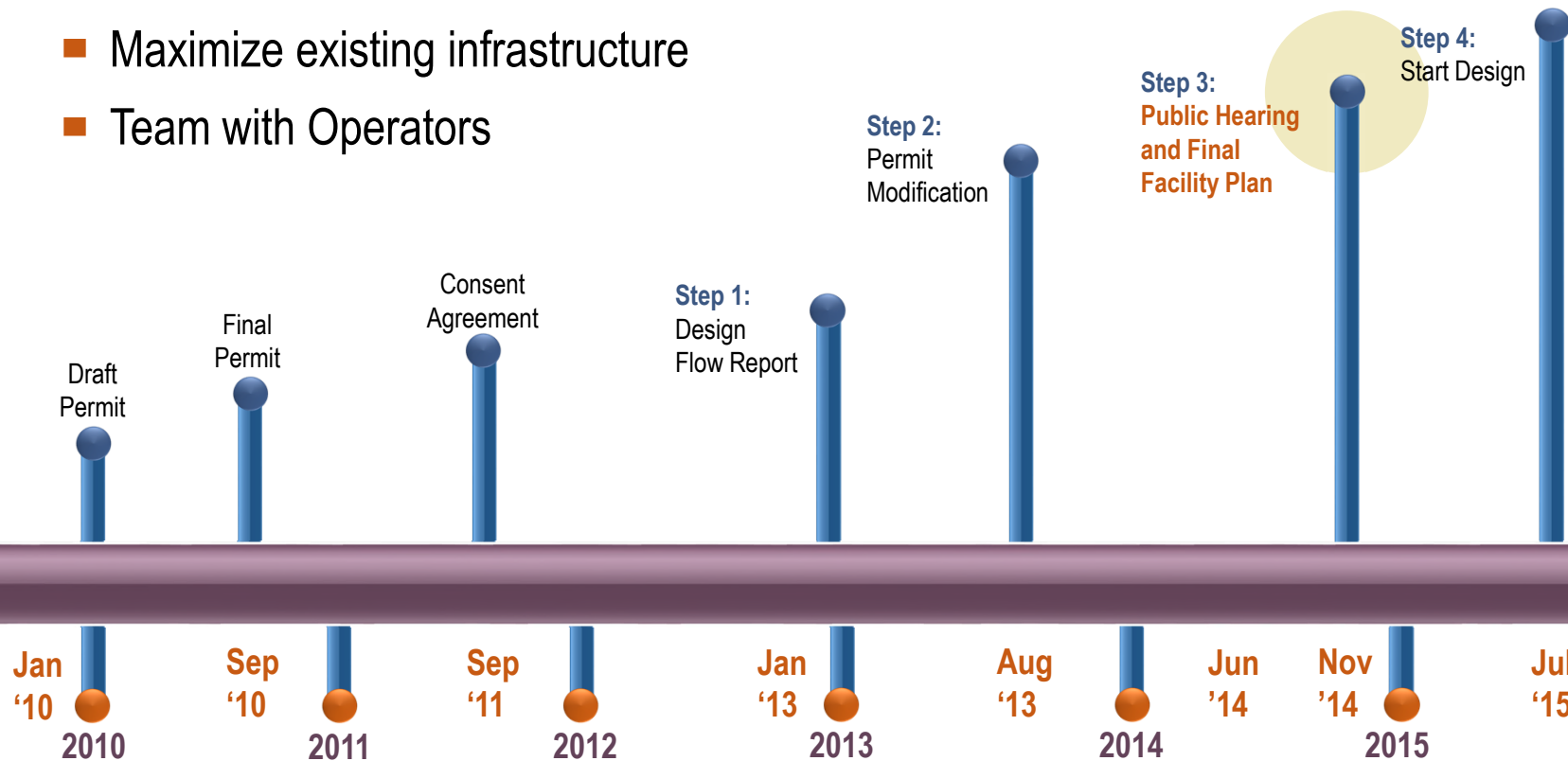
- Issued by DEM on August 28, 2013
- Contains limits that are more accommodating than the September 2010 Permit
- Flow and nitrogen limits are **seasonal versus monthly**
 - Provide a great deal of flexibility for compliance
 - Provide capital and operations cost savings



Project Timeline

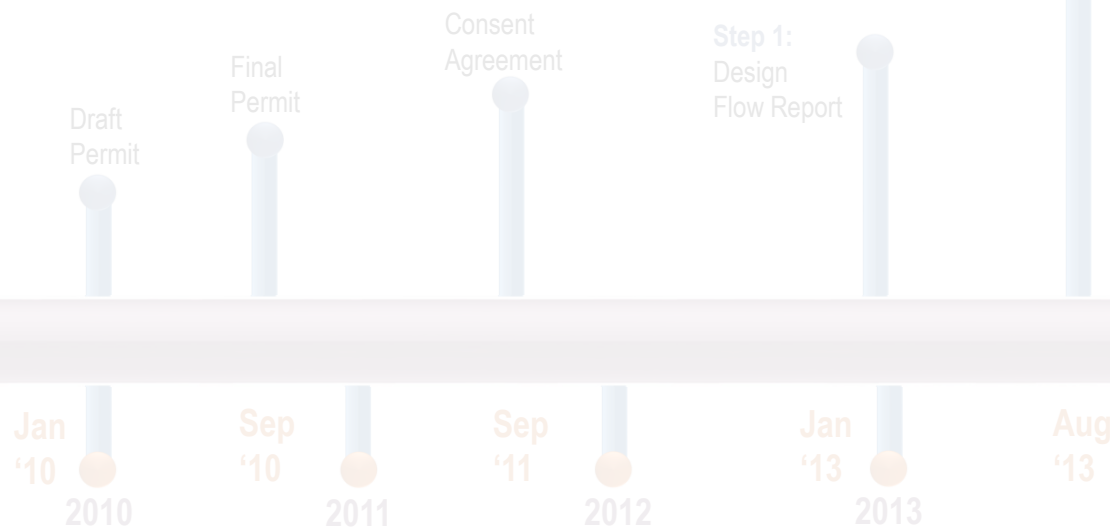
- Alternatives cost analysis
- Non-proprietary technology – lowest capital and O&M
- Maximize existing infrastructure
- Team with Operators

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Phase 2 - Facility Plan

- Draft submitted to DEM May 2014
- Public hearing September 2014
- DEM final approval October 2014



Recommended Nitrogen Removal Technology

■ Non-proprietary technology – lowest capital and O&M

■ **Variable Operating Mode**

- Maximum flexibility for responding to various conditions
- Lowest capital cost
- Lowest O&M costs
- Not a proprietary process

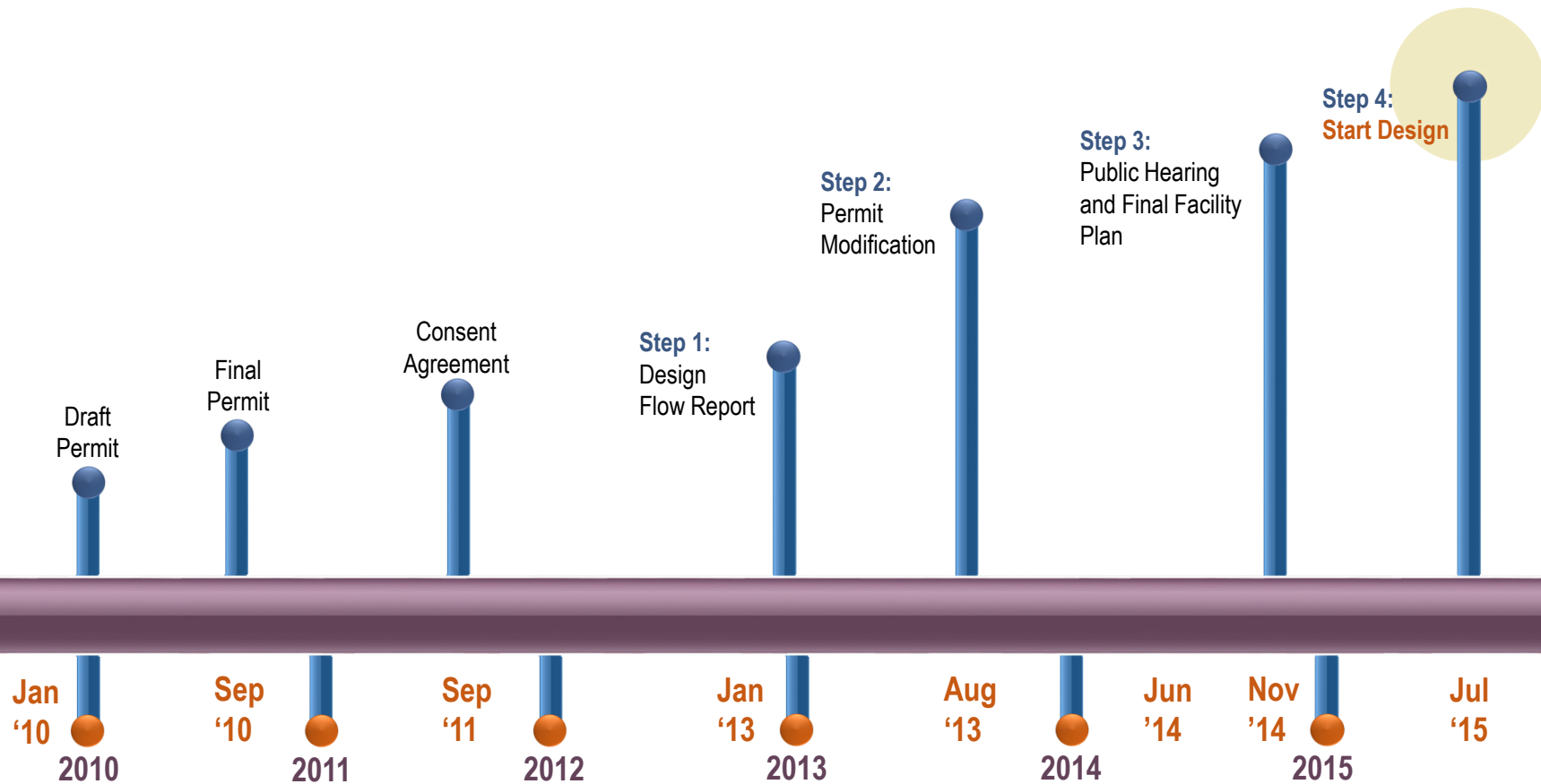


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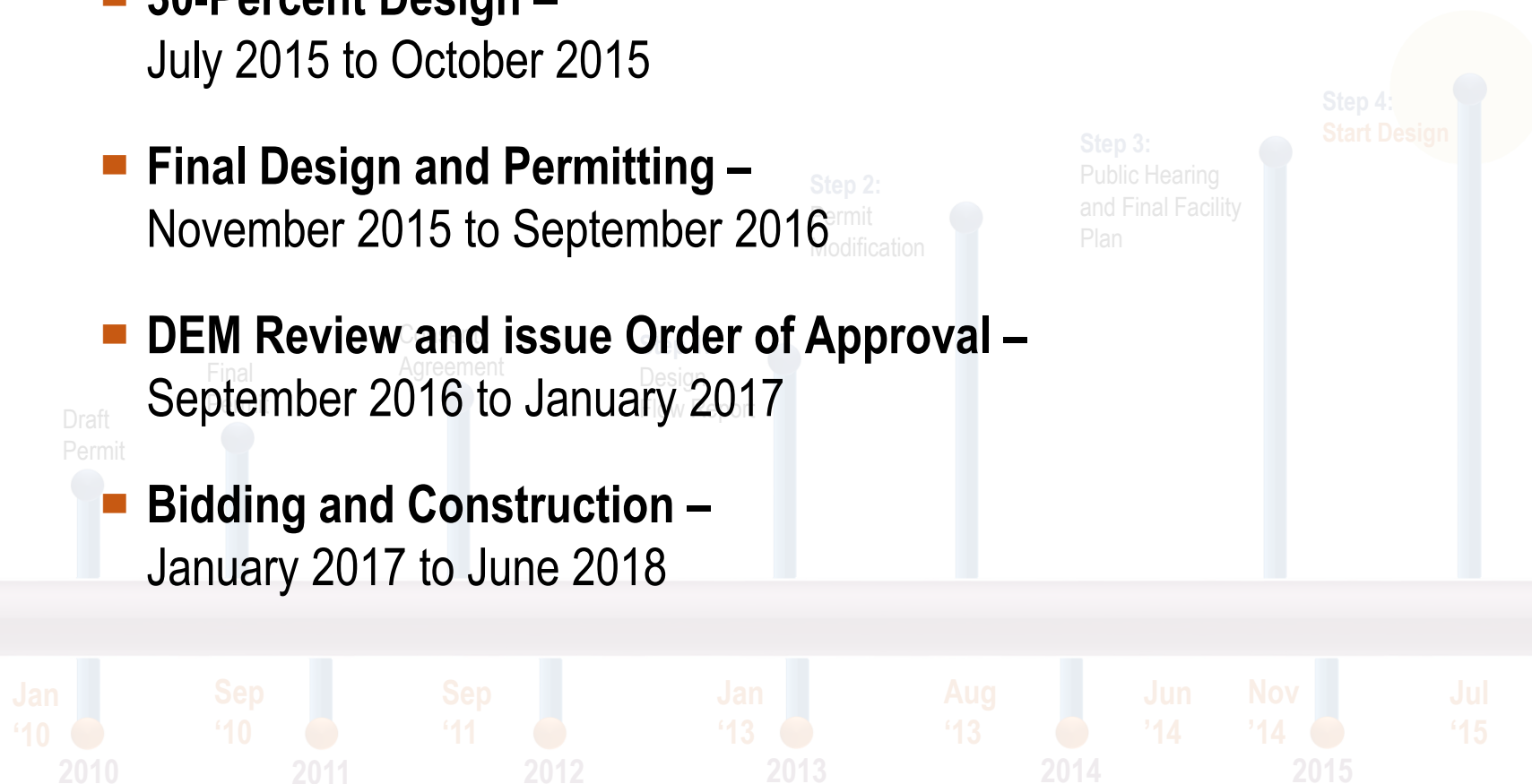
Project Timeline

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Schedule Timeline

- **30-Percent Design –**
July 2015 to October 2015
- **Final Design and Permitting –**
November 2015 to September 2016
- **DEM Review and issue Order of Approval –**
September 2016 to January 2017
- **Bidding and Construction –**
January 2017 to June 2018

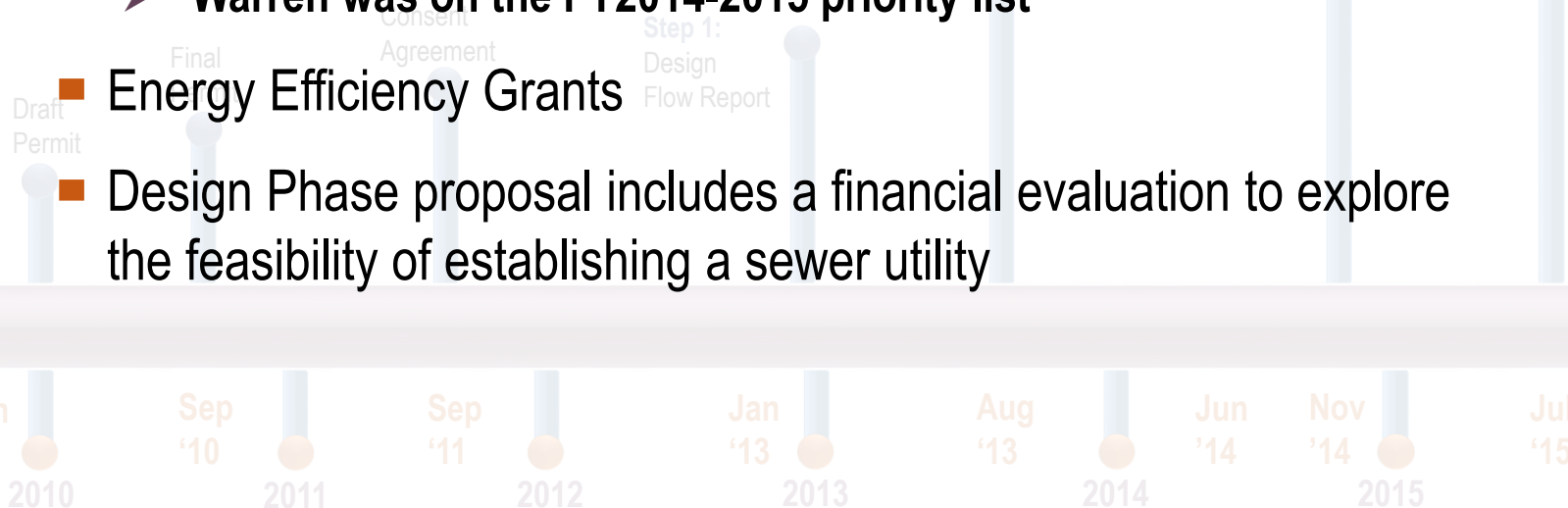


Funding Timeline

- Capital - The State Revolving Fund (SRF)
 - Co-managed by the R.I. Clean Water Finance Agency (RICWFA) & DEM
 - Provides below market rate loans for wastewater facilities
 - Every major treatment facility upgrade in RI to date has received funding through this program
 - **Warren was on the FY2014-2015 priority list**

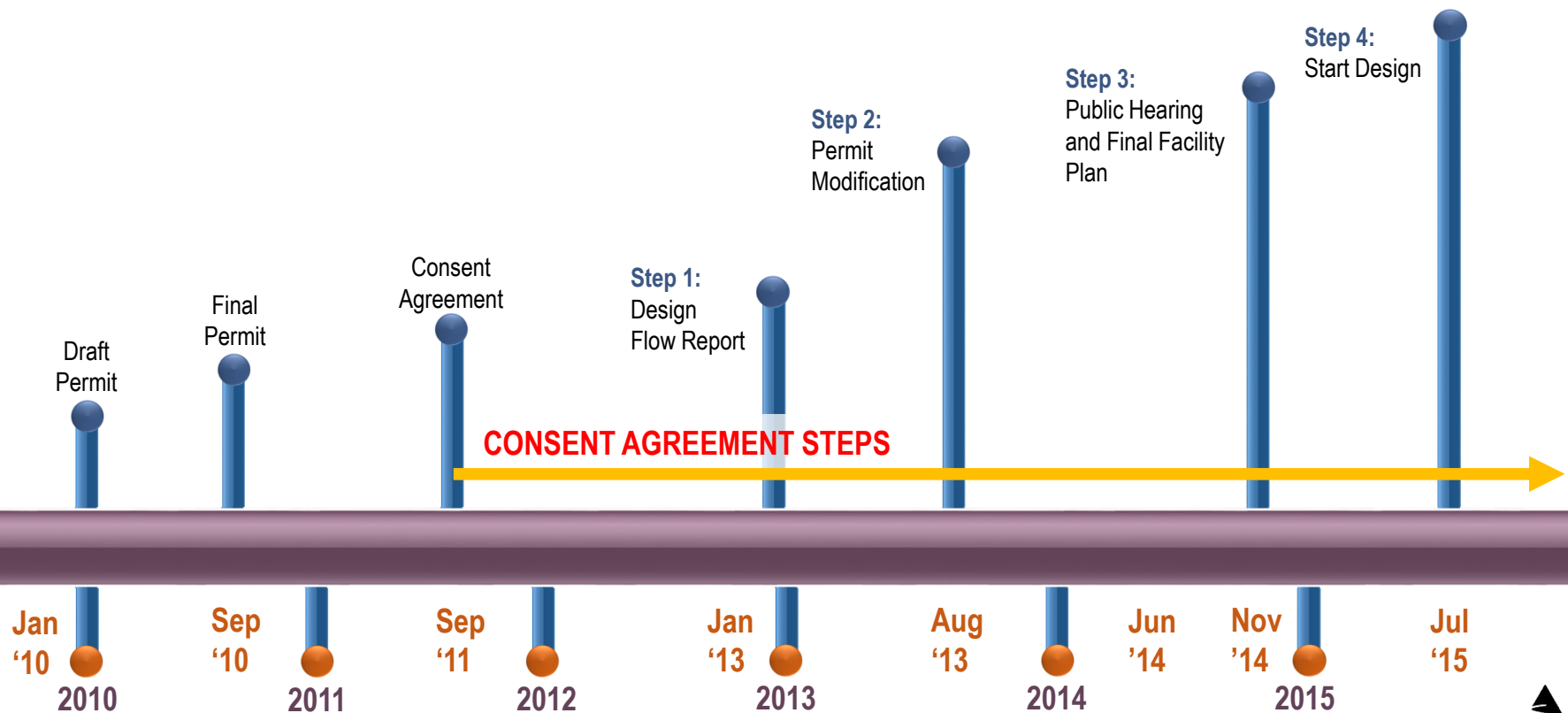
- Energy Efficiency Grants

- Design Phase proposal includes a financial evaluation to explore the feasibility of establishing a sewer utility



Project Timeline

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Questions / Discussion?

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